



Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)	Docket Number (Optional) 03761.041/5061.11a	Application Number 10/072,831
	Applicant Cao	
	Filing Date 02/06/02	Group Art Unit 2875

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

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OCT 10 2002

TECHNOLOGY CENTER R3700

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Guido Goracci, Giovanni Mori, Luca Casa de Martinis, "Curing light intensity and marginal leakage of resin composite restorations", Quintessence International, volume 27, number 5/1995 (8 pages)
	Hiromasa Kato, "Relationship between the velocity of polymerization and adaptation to dental cavity wall of light cured composites", Dental materials Journal 6(1):32-37 (1987) (6 pages)
	Uno, S., Asmussen, E., "Selected variables in bonding to dentin", Scand. J. Dent. Res. 1992: 100: 130-2 (2 pages)
	G.L. Unterbrink and R. Muessner, "Influence of light intensity on two restorative systems", J. Dent., vol. 23, no. 3, pp. 183-189 (1995) (7 pages).

EXAMINER	DATE CONSIDERED 12/13/2003
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U.S. PATENT APPLICATIONS

EXAMINER INITIAL	SERIAL NUMBER	FILING DATE	Title	Inventor		
RL	10/080,489	February 22, 2002	Light-Curing Device with Detachably Interconnecting Light Application	Dan E. Fischer, DDS Bruce S. McLean		
	10/068,397	February 5, 2002	Curing Light with Plurality of LED's and Corresponding Lenses	Dan E. Fischer, DDS Bruce S. McLean		
	10/068,103	February 5, 2002	Lightweight Hand Held Dental Curing Devices	Dan E. Fischer, DDS Bruce S. McLean		
	10/044,346	January 11, 2002	Optical Lens Used to Focus LED Light	Bruce S. McLean Vasily Nosov		
RL	10/024,110	December 17, 2001	Heat Sink with Geometric Arrangement of LED Surfaces	Robert R. Scott		

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

RL		Email from Jens Jenkins [Jjenkins@wnspat.com] to Dan McCarthy Re: Pending Application Information dated Wednesday, April 03, 2002 (2 pages) and listing 5 pending U.S. patent applications.

EXAMINER	RL	DATE CONSIDERED	12/13/2003
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FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
<i>PL</i>	DE 25 57 920 B2	3/20/1980	Germany	A61C 5/04			X
<i>PL</i>	DE 29 27 260 A1	2/28/1980	Germany	A61N 5/06			x
<i>PL</i>	1 570 507	12/8/1976	Great Britain	A61N 5/06		x	
<i>PL</i>	0 339 841 B1	2/11/1989	European Patent Specification	C08F 2/50		x	

OTHER DOCUMENTS (Including Author, Title, Date, Portmug Pages, Etc.)

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PL		A. Mehl, H. Staunau, D. Schreyger, K.H. Kunzelmann, R. Hickel, LMU University Dental School, D-80336 Munich Germany, 1 page abstract, Journal of Dental Research, vol. 74, 1995, special issue p. 462.
		Sakaguchi and Berge, "Light Intensity Effects on Degree of Cure Posterior Composite", #1972, IADR 1997 (4 pages).
		Shigero Uno and Erik Asmussen, "Marginal Adaptation of A Restorative Resin Polymerized At A Reduced Rate" (5 pages).
		Peter Koran & Ralf Kurschner, "Effect of sequential versus continuous irradiation of a light cured resin composite on shrinkage, viscosity, adhesion, and degree of polymerization, CE Article #3-198, Americal Journal of Dentistry, vol 11, No. 1, February 1998 (6 pages).
		A. Mehl, R. Hickel, K.H. Kunzelmann, Dental School Munich Germany, "Physical properties and gap formation of light cured composites with and without softstart-polymerization" faxed copy dated May 30, 1996 (27 pages).
		K.J. Reinhardt and J. Vahl, "Uncertainties in the Testing of Photopolymers" 11 pages.
		A.J. Felzner, L.H. Dooren, A.J. de Gee, and C.L. Davidson, "Influence of light intensity on polymerization shrinkage and integrity of restoration cavity interface", Eur J. Oral Sci. 1995; 103: 322-326 (5 pages).
		A. Mehl, M. Sobota, R. Hickel, "Soft start polymerization of composites in class V cavities"(10 pages).
PL		Saliha S. Davidson-Kaban, Carel L. Davidson, Albert J. Feilzer, Anton J. de Gee, Nejdert Erdilek, "The effect of curing light variations on bulk curing and wall to wall quality of two types and various shades of resin composites", Dent Mater 12:344-352, November 1997 (9 pages)

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EXAMINER R. L. ...	DATE CONSIDERED 12/13/2003
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PL	6,328,456	12/11/2001	Mize	362	311	3/24/2000
	6,208,788	3/27/2001	Nosov	385	121	7/29/1998
	6,200,134	3/13/2001	Kovac et al	433	29	1/20/1998
	6,103,203	8/15/2000	Fischer	422	186	8/15/2000
	6,099,520	8/8/2000	Shmoji	606	2	6/30/1998
	6,089,740	7/18/2000	Forehand et al	362	573	1/8/1998
	6,008,264	12/28/1999	Ostler et al	520	4	4/26/1998
	5,912,470	6/15/1999	Elbofner et al	250	504H	
	5,980,295	6/1/1999	Kawata	433	29	
	5,908,294	6/1/1999	Schick et al	433	29	
	5,797,740	8/25/1998	Lundvik	433	29	
	5,791,898	8/11/1998	Malssami	433	164	
	5,782,553	7/21/1998	McDermott	362	245	
	5,711,665	1/27/1998	Adam et al	433	9	
	5,660,461	8/26/1997	Ignatius et al	262	241	
	5,521,392	5/28/1996	Kennedy et al	250	492.1	
	5,485,317	1/16/1996	Perissinotto et al	359	712	
	5,457,611	10/10/1995	Verderber	362	32	
	5,350,834	9/27/1994	Bobsein et al	528	485	
	5,348,552	9/20/1994	Nakajima et al	606	13	
	5,238,744	8/24/1993	Williams et al	428	412	
	5,151,520	9/29/1992	Gottschalk et al	548	110	
	5,139,495	8/18/1992	Dalkuzono	606	17	
	4,936,776	6/26/1990	Kwiatkowski	433	220	
V	4,839,566	6/13/1989	Herold et al	31	308	
	4,698,730	10/6/1987	Sakai et al	362	311	
	4,308,120	12/29/1981	Penneweiss et al	204	159.23	
	4,281,366	7/28/1981	Wurster et al	362	32	
RL	4,229,658	10/21/1980	Gosner	250	504	
	4,184,196	1/15/1980	Moret et al	433	29	
	4,149,086	4/10/1979	Nath	250	504	

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EXAMINER

P. L. L.

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JC828 U.S. PTO

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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
RL	5,660,461	8/26/1997	Ignatius et al	362	241	
↓	5,698,866	12/16/1997	Doiron et al	257	99	
	5,803,729	9/8/1998	Tsimerman	433	29	
	5,890,794	4/6/1999	Abtahi et al	362	294	
	6,019,482	2/1/2000	Everett	362	184	
	6,077,073	6/20/2000	Jacob	433	29	
	6,095,661	8/1/2000	Lebens et al	362	184	
	6,102,696	8/15/2000	Osterwalder	433	29	
	5,328,368	7/12/1994	Lansing et al	433	116	
	Des. 361,382	8/15/1995	Brunsell et al	24	177	
	Des. 385,051	10/14/1997	Wu	D26	2	
	6,325,623	12/4/2001	Melnyk et al	433	29	3/31/2000
	6,322,358	11/27/2001	Senn et al	433	29	
	6,095,812	8/1/2000	Senn et al	433	29	
	6,159,005	12/12/2000	Herold et al	433	29	
	RL	6,318,996	11/20/2001	Melikechi et al.	433	29
6,325,623		12/4/2001	Melnyk et al	433	29	
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PL		"LumaLite Luma 8, LumaArch, LumaCure" (4 pages) (printout from www.luma-lite.com)
		"Curing Light XL 3000" (3 pages) (printout from www.brooks.af.mil)
		"LumaCure Cordles Curing Light" (2 pages) (printout from www.brooks.af.mil)
		"Compo-T VLC Visible Light Cure Composite Dental Restorative Materials" (4 pages) (Printout from www.yates-motloid.com)
		Bayne et al, "Update on dental composite restorations", JADA, vol. 125, June 1994, pages 687-701.
		"Accucure 3000" brochure (2 pages)
		"Accucure 1000" brochure (2 pages)
		"LaserMed AGD Show Special AccuCure 3000 Laser Show Special" flyer (1 page)
		"LumaCure" flyer (1 page).
		"ARC Light IIM" brochure (2 pages).
		"Introducing the Apolloelight wireless curing light" flyer (1 page).
		"Just Cure It" brochure (3 pages) (printed out from www.airtechniques.com)
		"Resin Curing Lights: What You Should Know", page 36 from Contemporary Esthetics and Restorative Practice, November, 2001.
		"Starlight Starlight p" flyer (1 page).
		"Exelite" flyer (1 page)
		"Epilar FreeLight" flyer (1 page).
		"Centrix, Introducing VersaLux the world class battery operated LED curing light that fits in the palm of your hand (July-August 2001) (1 page)
		"ZAP Dental Curing" flyer (1 page)
		"EXELITE" flyer (1 page)
		"Elipar Freelight Curing Light" (2 pages) (printout from cms.3m.com)
		"Intraoral Resin Curing Lights - Update '96" excerpt from March 1996 CRA newsletter (2 pages).

EXAMINER P. L.	DATE CONSIDERED Dec 13, 2003
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RL		"All-Cure Standard and Custom Dental Curing Lightguides" (1 page) (Printout from www.all-cure.com)
		"Welcome to Bonart Medical Supply" (2 pages) (printout from www.bonartmed.com)
		"Bonart" (4 pages listing dental equipment including ART-L1 'High Power Light Curing Unit') (printout from www.bonartmed.com)
		"Dentamerica - Litex" (2 pages discussing Litex 680A, Litex 682, and Litex 692 curing lights) (printout from www.dentamerica.com)
		"Problems with the Apollo E curing light" (1 page article) (printout from www.imakenews.com)
		"Bellini X Ray" (2 pages depicting Sunlite 1275 curing light) (printout from www.bellinixray.com)
		"ACTA CURING LIGHT" (2 pages) (printout from www.amadent.com)
		"Laser Technology in Dentistry" (3 pages) (printout from dentistry.about.com)
		"Synopsis of Visible Light Curing Units" (8 pages summarizing various curing lights) (printout from www.brooks.af.mil)
		"Zap Dual Curing Light" (2 pages) (printout from www.brooks.af.mil)
		"Vivalux II Cordless Polymerization Unit" (2 pages) (printout from www.brooks.af.mil)
		"VersaLux Cordless Curing Light" (2 pages) (printout from www.brooks.af.mil)
		"Variable Intensity Polymerizer Light Curing Unit (VIP)" (3 pages) (printout from www.brooks.af.mil)
		"Spectrum 800 Curing Unit" (2 pages) (printout from www.brooks.af.mil)
		"Optilux 501 Polymerization Unit" (2 pages) (printout from www.brooks.af.mil)
		"Optilux 500 Polymerization Unit" (2 pages) (printout from www.brooks.af.mil)
		"Optilux 180 & 360 Polymerization Units" (2 pages) (printout from www.brooks.af.mil)
		"Hilux 350 Curing Light" (2 pages) (printout from www.brooks.af.mil)
		"Epilar Highlight Curing Light" (2 pages) (printout from www.brooks.af.mil)
		"Apollo 95E Curing Light" (2 pages) (printout from www.brooks.af.mil)
RL		"ARC Light II" (2 pages) (printout from www.brooks.af.mil)

EXAMINER

Ralph Lutz

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RL		"Savings on Curing Lights from Lone Star Dental Corp.", including First Medica Hilux 200, Spring Health Powerlite and Dentamerica Litex (1 page) (printout from www.denteqip.com).
		"LED Curing Light" from TOESCO Yoshida Toei Engineering Co., Ltd. (October 2001).
		"Dental/Medical Diagnostic Systems, Inc. Receives \$4.0 Million Order for Its Wireless Apollo e and Wavelight Curing Unites Based on New LED Technology" (2 pages) (printout from www.compoundsemiconductor.net).
		"Heat Data" (2 pages) (regarding rise in tooth pulp temperature with various curing lights).
		"Comparison to Other Curing Lights" (2 pages) (printout from www.cranews.com)
		"Curing Performance" (4 pages) (printout from www.cranews.com)
		"Technical Data" (3 pages) (printout from www.cranews.com)
		"Photographs" depicting Virtuoso curing light (printout from www.cranews.com)
		Caughman, et al., "In Vitro Intrapulpal Temperature Rise with a Variety of Light Sources" (1 page).
		Bouschlicher, et al., "Intrapulpal Temperature Increases with LED, QTH and Arc Photoinitiation" (1 page).
		Meyer et al., "Decrease in Power Output of Blue LD Curing Lights with Increasing Distance to Filling Surface" (1 page).
		Parr et al., "Spectral Analysis of Commercial LED Dental Curing Lights" (1 page)
		CRA Newsletter, Vol. 20, Issue 3, "Intraoral Resin Curing Lights", (March 1996) (2 pages).
		CRA Newsletter, "Resin Curing Light, Cordless" (2 pages).
		CRA Newsletter, "Visible Curing Lights" (4 pages).
		"Power PAC" (3 pages) (printout from www.americandentaltech.com)
		"The PAC" (2 pages) (printout from www.americandentaltech.com)
		"The Science of Curing" (8 pages) (printout from www.lasermed.com)
		"The Accucure 1000" (2 pages) (printout from www.lasermed.com)
		"The Accucure 3000" (2 pages) (printout from www.lasermed.com)
RL		"RemeCure CL15" (1 page) (printout from www.remedent.com)

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RL	6,200,134	3/13/2001	Kovac et al	433	29	1/20/98
1	5,713,738	2/3/1998	Yarborough	322	215	9/5/1996
	6,254,388	7/3/2001	Yarborough	433	215	2/2/1998
	6,331,111	12/18/2001	Cao	433	29	9/24/1999
	4,221,994	9/9/1980	Friedman et al	315	224	
	4,666,406	5/19/1987	Kanca III	433	229	
	4,935,665	6/19/1990	Murata	313	500	
	4,963,798	10/16/1990	McDermott	315	312	
	4,989,217	1/29/1991	Ostler	372	107	
	5,115,761	5/26/1992	Hood	118	641	
	5,123,845	6/23/1992	Vassiliadis et al	433	215	
	5,161,879	11/10/1992	McDermott	362	206	
	5,214,658	5/25/1993	Ostler	372	23	
	5,233,283	8/3/1993	Kennedy	320	13	
	5,275,564	1/4/1994	Vassiliadis et al	433	226	
	5,415,543	5/16/1995	Rosmajzl Jr.	433	29	
	5,420,758	5/30/1995	Kennedy	362	119	
	5,472,991	12/5/1995	Schmitt et al	522	4	
	5,550,853	8/27/1996	Ostler	372	34	
	5,616,141	4/1/1997	Cipolla	606	15	
✓	5,803,729	9/8/1998	Tsimerman	433	29	
	6,008,264	12/28/1999	Ostler et al	522	4	
RL	6,282,013	8/28/2001	Ostler et al	359	309	
	5,634,711	6/3/1997	Kennedy et al	362	119	

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Published PCT Patent Application PCT/US99/01126 (WO 99/35995) (22 July 1999)

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